



U.S. Fish & Wildlife Service

Contaminated Military Sites on Wildlife Refuges

Alaska Region

Did you know?

- There are over 60 abandoned military sites located on National Wildlife Refuges in Alaska.
- Amchitka Island was the site of the largest underground nuclear test ever performed by the United States.
- The Navy has spent over \$200 million to cleanup chemically contaminated sites on Adak Island.

National Wildlife Refuges (NWRs) were first established in Alaska in the early 1900s to protect seabird nesting islands, fisheries and furbearing mammals. In the ensuing years, additional lands were added to existing refuges, and new refuges were created. Currently, there are sixteen refuges in Alaska encompassing approximately 76 million acres of land.

Lands within the NWR System in Alaska have varied and interesting histories. While large tracts of land remain in near-pristine condition, some past uses of Refuge lands have resulted in contamination of natural resources. The U.S. Fish and Wildlife Service is the primary federal agency dedicated to protecting wildlife and their habitats from pollution's harmful effects. The following are examples of contaminated sites resulting from military activities on NWRs in Alaska.

Military Activities

Alaska played a key role in national defense during World War II and the Cold War. Refuge lands were used for military

installations, staging areas, supply depots and training grounds. On occasion they even became battlefields. There are approximately 60 Formerly Used Defense Sites (FUDS) on Alaskan Refuges and over 550 FUDS in the State. After military operations at these locations ceased, the sites were typically abandoned. Entire facilities commonly were left intact or minimally cleaned due to the costs involved with transporting wastes and debris from remote Alaskan sites. All too often, hazardous materials were spilled with no subsequent cleanup, and thousands of 55 gallon drums (some still partly or completely full) were abandoned, subsequently rusting through and releasing their contents to the surrounding environment.

The Service has conducted numerous contaminants studies on Alaskan Refuges, establishing baseline conditions, identifying potentially contaminated sites, investigating impacts on fish and wildlife species and working with responsible parties to ensure cleanup of these sites. A number of sites currently are being remediated or are scheduled for remediation by the U.S. Army Corps of Engineers (COE), the Department of the Navy or the Department of the Air Force.

Alaska Maritime NWR: Adak Island Cleanup

Adak Naval Base served as an important harbor and airfield during World War II and later during the Cold War, housing up to 90,000 troops. Adak Naval Air Facility was listed on the National Priorities List as a Superfund site in 1994 and is currently being closed under the Base Realignment and



Abandoned landfill on Adak Island, Alaska Maritime NWR. USFWS photo.

Closure Act. The Navy has spent over \$200 million on chemical contamination issues on Adak (not including ordnance cleanup).

Identification and cleanup of unexploded ordnance (UXO) on Adak presents unique problems due to the size of the potentially contaminated areas and the island's volcanic rock, which interferes with traditional UXO survey techniques. The UXO characterization and hazard evaluation processes developed by the Navy for Adak is precedent setting and may have implications for many other defense sites throughout the country.

The Alaska National Interest Lands Conservation Act mandates that public lands in Alaska offer unrestricted recreational access. While other Refuges throughout the Nation can restrict public access, and therefore keep people out of



Contaminated water resulting from military activities on Adak Island, Alaska Maritime NWR. USFWS photo.

potentially hazardous UXO areas, this is not an option for Alaskan Refuges. Consequently, cleanup levels must be conservative to protect public health and safety on refuge lands.

Alaska Maritime NWR: Amchitka Island Cleanup

Amchitka Island was used as a forward fighter and bomber base during World War II in the Aleutians, and facilities were constructed to house 16,000 troops. These bases were occupied until 1951 and then abandoned.



Amchitka Island, Alaska Maritime NWR. USFWS photo.

During the Cold War, Amchitka was the site of three underground nuclear tests conducted by the Atomic Energy Commission for the Department of Defense, including the Cannikin test shot, which was the largest underground nuclear test ever performed by the United States. Most recently the Navy operated an advanced radar facility on Amchitka from 1987-1993.

The COE, Department of Energy (DOE) and the Navy are planning significant surface cleanup and debris removal activities on Amchitka for summer 2001, costing an estimated \$15-20 million. The DOE, coordinating with the Service and State of Alaska, is also developing their long-term stewardship and monitoring plan for Amchitka, since potential radionuclide contamination will be a continuing issue for decades, perhaps centuries.

Alaska Maritime NWR:

Attu and Kiska Islands

These two Aleutian Islands were occupied by the Japanese during World War II, but were eventually retaken by the Allied forces. The Japanese constructed extensive facilities and fortifications, some of which were later used by Allied troops. Chemical contamination and significant UXO issues still need to be addressed on these islands. Unlike firing ranges with defined impact areas, these battlefield sites have widespread UXO contamination that is much more difficult to pinpoint.

Only the U.S. military "installations" on these Islands are eligible for FUDS funding; the historic battlefields are exempt from FUDS cleanup funds. There are unique and significant cleanup issues still remaining on Attu and Kiska. Currently, the Service is negotiating cleanup schedules for these and other Aleutian Islands with the U.S. Environmental Protection Agency (EPA) and FUDS program.



Japanese sea mine found in 1999 on Attu beach, Alaska Maritime NWR. USFWS photo.

Arctic NWR: DEW Line Sites

A network of Distant Early Warning (DEW) radar sites was established along the North Slope of Alaska and in northern Canada beginning in 1952. Approximately 10 DEW Line associated FUDS sites have been identified within the Arctic NWR. The COE and Air Force have spent years removing debris from many of these sites and removing/treating contaminated soil. The contaminants of concern are primarily petroleum products, PCBs and DDT.

White Alice Communication Sites

A large network of military White Alice Communication Sites (WACS) was initiated in 1956, resulting in 49 WACS located throughout Alaska with approximately 11 of these sites located on refuge lands. Issues at WACS include fuel contamination, PCB contamination and landfills. Currently, the Service is discussing cleanup issues with the Air Force at several WACS including Cape Newenham (Togiak NWR) Cape Romanzof (Yukon Delta NWR) and Fort Yukon (Yukon Flats NWR).



White Alice Communication Site on Cape Romanzof, Yukon Delta NWR. USFWS photo.

Future Issues

This Fact Sheet highlights some of the many contaminated military sites on NWRs in Alaska. In addition to the already established contaminated sites, numerous other military sites are currently withdrawn from the Refuge System and may at some point return to the Service through the Revocation/Restoration process. Contamination issues at these sites include fuel spills, PCB contamination and landfills.

The Environmental Contaminants Program and Division of Refuges work together with other agencies to oversee cleanup of contaminants on refuge lands. The workload associated with this large number of contaminated military sites exceeds existing staffing, and only the most significant issues can be addressed.

U.S. Fish & Wildlife Service
1 800/344 WILD
<http://www.fws.gov>

For more information about the Contaminants Program in Alaska contact:
Philip C. Johnson
U.S. Fish & Wildlife Service
1011 East Tudor Road
Anchorage, AK 99503
907/786 3483
Philip_Johnson@fws.gov

Visit the Contaminant Program home page at:
<http://www.r7.fws.gov/es/dec.html>

December 2000